

COP 3503 Section 201 Fall 2026 Program #4 Grading Criteria (100 points total)

1. Programming Style - 8 pts (Header Comment, Internal Comments, Use of white space, consistency, reasonable code lay out.)
2. Reads in input from standard input and outputs to standard output (2 pts)
3. Has chosen a reasonable method(s) to store the state of the game board (5 pts)
4. Has code that corresponds to a breadth first search. (5 pts)
5. Has code that checks if a move is valid. (5 pts)
6. Has code that tries to generate all possible moves (and then check them for validity) (5 pts)
7. Has devised a way to store the board state. (5 pts)
8. Attempts to map reachable board states to the number of moves it took to get there. (5 pts)
5. Test Cases - 50 pts – There are 68 test cases in this one record score as $\text{floor}((50 \cdot C)/68)$, where C is the number of test cases that correctly complete in **10 seconds**.
6. Commentary File – 10 pts (**Note: if this file isn't consistent with the submission, indicating that AI or significant outside help was involved, then the grader may assign a 0.**)

If a program does not compile, max grade of 20 out of 100.